

I CLAIM:

1. A pump for cementitious material comprising:

a sealed drive stage capable of imparting rotary motion;

a rotor/stator mechanism including a rotor disposed within a stator for displacing cementitious material within and along the length of said stator as said rotor undergoes rotational displacement;

a connector coupling said drive stage to said rotor/stator mechanism for rotationally displacing said rotor; and

a sealed suction housing enclosing said connector and connecting said drive stage to said rotor/stator mechanism and adapted to receive cementitious material, wherein rotation of said rotor by said drive stage draws cementitious material from said suction housing for displacement within and discharge from said rotor/stator mechanism, said suction housing including plural removable plates for exposing said connector and an inner portion of said suction housing to facilitate cleaning and repair of the pump.

2. The pump of claim 1 further comprising plural coupling members connecting each of said removable plates to said suction housing.

3. The pump of claim 2 wherein each of said removable plates includes plural apertures each adapted to receive a respective coupling member.

4. The pump of claim 3 wherein each coupling member includes a threaded pin attached to said suction housing and adapted for insertion through a respective aperture in a plate, each coupling member further including a threaded connector for engaging a respective threaded pin for securely maintaining a plate on said suction housing in a sealed manner.

5. The pump of claim 4 wherein said suction housing includes front and aft walls adapted for connection to said rotor/stator mechanism and to said drive stage, respectively, said suction housing further including top, bottom and side panels each having a respective aperture therein, wherein each of said top, bottom and side panels is adapted for receiving and connection to a respective plate in a sealed manner.

6. The pump of claim 5 further comprising an inlet tube connected to one of said plates and disposed over an aperture therein for directing cementitious material into said suction housing.

7. The pump of claim 6 wherein the position of said inlet tube on said suction housing may be changed by moving a plate connected to said inlet tube from a first to a second location on said suction housing.

8. The pump of claim 1 further comprising a cover disposed over said connector to prevent contact of said connector with said cementitious material.

9. The pump of claim 8 wherein said rotor includes a hollow end portion and said drive stage includes a drive shaft, and wherein said connector is disposed within the hollow end portion of said rotor and connects said rotor to said drive shaft, and wherein said cover prevents contact of said drive shaft, connector and hollow end portion of said rotor with the cementitious material.

10. The pump of claim 9 wherein said cover is a gasket.

11. The pump of claim 10 wherein said gasket is comprised of elastomeric material.

12. The pump of claim 11 wherein said gasket is of a hollow, generally cylindrical shape and engages in a sealed manner adjacent ends of said drive shaft and said rotor.

13. The pump of claim 1 wherein said pump includes a drive shaft coupled to said rotor and a lubricant reservoir connected to said suction housing for lubricating said drive shaft.

14. The pump of claim 13 further comprising packing materials disposed within said suction housing and positioned about and engaging said drive shaft, and wherein a lubricant is provided to said packing materials.

15. The pump of claim 14 wherein said suction housing includes a flange connected to said drive stage, and wherein said packing materials and said drive shaft are disposed within said flange.

16. A pump for cementitious material comprising:  
a sealed drive stage including a drive shaft capable of imparting rotary motion;  
a rotor/stator mechanism including a rotor disposed within a stator for displacing cementitious material within and along the length of said stator as said rotor undergoes rotational displacement;

a connector coupling said drive stage to said rotor/stator mechanism for rotationally displacing said rotor;

a sealed suction housing enclosing said connector and connecting said drive stage to said rotor/stator mechanism and adapted to receive cementitious material, wherein rotation of said rotor by said drive stage draws cementitious material from said suction housing for displacement within and discharge from said rotor/stator mechanism, said suction housing including plural removable plates for exposing said connector and an inner portion of said suction housing to facilitate cleaning and repair of the pump;

a cover disposed over said connector and adjacent ends of said drive shaft and said rotor

for preventing contact of said connector, drive shaft and rotor with the cementitious material; and  
a source of lubricant attached to said suction housing for lubricating said drive shaft.